

COMMUNITY ELEMENTS

The following sections present the community elements, focusing on the vulnerability data for the incorporated communities of Auburn, Colfax, Lincoln, Loomis, and Rocklin.

CITY OF AUBURN

Population: 12,462 (2000 Census)

Area: 7.2 square miles

According to the Safety Element portion of the General Plan, Auburn has not declared any local emergencies or been part of any state or federal declared emergencies in the recent past. The Hazard Analysis Summary for the City of Auburn is below.

SUMMARY HAZARD ANALYSIS: CITY OF AUBURN

Hazard	Estimated Frequency	Expected Severity
Aircraft Accidents	Low	Moderate
Earthquakes/Geologic Hazards	Rare	Moderate
Fires	Occasional	High
Floods	Low	Low
Hazardous Materials Incidents	Frequent	Low
Interstate 80 Corridor Accidents	Frequent	Moderate
Terrorism	Rare	Moderate

Total Vulnerability and Values At Risk

The following sections show the total value of property and key inventories at risk within the City of Auburn.

Assessor Data

Utilizing Placer County assessor data, the total assessed values for the City of Auburn are:

2004 CERTIFIED ROLL VALUES

Property Type	Units	Net Value
Residential	4,944	961,861,685
Commercial	481	167,050,896
Industrial	34	10,419,736
Agricultural	31	765,138
Total Value	5,494	1,142,840,470

Critical Facilities Inventory

Utilizing the definition of critical facilities previously set forth in this Plan, the critical facilities in the City of Auburn are listed below.

Class 1 Facility:

- Auburn City Dispatch Center

Class 2 Facilities:

- Auburn Police Stations
- Auburn Fire Stations
- Auburn Airport

Class 3 Facilities:

- Schools
- Water Treatment plants
- Power generation infrastructure
- Sewage infrastructure
- Auburn Fair Grounds
- Memorial Halls
- Park Facilities

Cultural and Natural Resources at Risk

Cultural and natural resources in the City of Auburn include those previously identified in the County inventory. Of specific cultural value to the city is Historic Old Town Auburn. The State Recreation Area bordering the City limits of Auburn is an important natural resource to the community. No other separate inventories or mapping of cultural or natural resources have been conducted by the City of Auburn; therefore, the HMPC was unable to perform a more accurate analysis of these resources located within City limits.

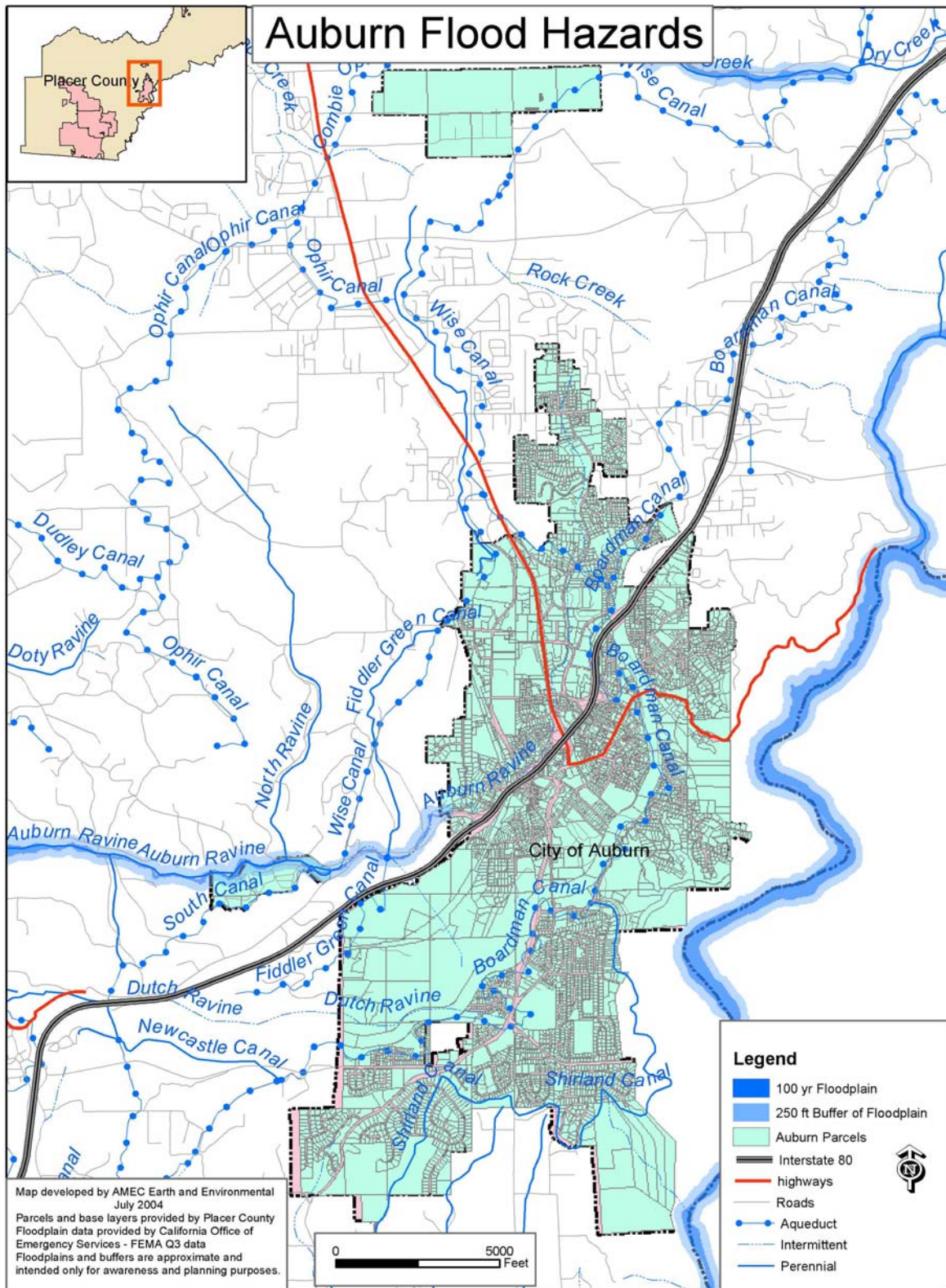
Development Trends

Although growth as a whole in Placer County has been significant in the last 14 years, Auburn is one of two cities that have demonstrated negative population growth between 1999 and 2003. However, the city is projected to have a housing unit increase of 37.8 percent between 2000 and 2020. New development in Auburn includes small residential subdivisions infilling areas within the City limits.

Vulnerability to Flood

According to the Safety Element of Auburn's General Plan, "The average annual rainfall totals 35 inches...[and] although no major flooding is expected in the planning area, intermittent flooding and sheet wash occur along major drainage channels and adjoining areas on scattered sites. Areas with flood hazards are the natural drainage channels of the Auburn Ravine, Dutch Ravine and Rock Creek, and the tunnel section of the Auburn Ravine under Old Town." Also considered a flood hazard are the numerous under-sized bridge and culverts within the Auburn/Bowman Area.

The map on the following page intersects the City of Auburn's parcel data with FEMA's Q3, 100-year floodplain data. Based on this analysis the following table quantifies the value of parcels falling within the 100-year floodplain.



(Map Compilation: AMEC Earth & Environmental; Source Data: FEMA's Q3 data/Placer County Assessor)

Assessor Data

The following table shows the value of parcels located within the 100-year floodplain.

CITY OF AUBURN: 100-YEAR FLOODPLAIN VALUES AT RISK

Property Type	Parcel Count	Net Value
Agricultural	1	0
Commercial	1	0
Industrial	0	0
Residential	5	230,067
Total	7	230,067

Insurance Coverage, Claims Paid, and Repetitive Losses

The City of Auburn joined the NFIP on 12/23/1981. The following table identifies the existing FIRM maps within the city limits.

CITY OF AUBURN: NFIP COMMUNITY #06061C0

Map Number	Effective Date
06061C0288F	06/08/1998
06061C0409F	06/08/1998
06061C0426F	06/08/1998
06061C0428F	06/08/1998
06061C0450F	06/08/1998
06061CINDO	11/21/2001

NFIP Insurance data indicates that as of August 31, 2004, there are 14 flood insurance policies in the City of Auburn. Historically, there have been 23 claims for flood losses totaling \$483,022.

Vulnerability to Dam Failure

A dam failure can range from a small, uncontrolled release to a catastrophic failure. The HMPC's analysis of inundation areas for dam failure's was based strictly on information on file with CA-OES and was evaluated on a County-wide basis in the previous section. The analysis does not reflect the actual inundation maps on file for each of the dams. Since available dam failure data was limited, no further analysis was done with respect to the potential vulnerability of the City of Auburn to dam failures. However, utilizing the CA-OES GIS data, dam inundation zones generally follow the existing streams and drainage areas, and areas subject to flooding from a dam failure would likely be those areas located along these streams and drainages.

Vulnerability to Wildfire

Three types of fires are of concern to the City of Auburn: wildland, urban-wildland interface, and, to a lesser extent, structural fires. According to the Safety Element of Auburn's General Plan, wildland and urban interface fires have occurred close to or encroached into the City, especially in the heavily forested areas to the south. Urban structural fires "have been due largely to human accidents," and the threat is "continuously present in the form of older buildings in the city center..." (pg. IX-9).

The Countywide Wildland Fire Risk Map (page 124) identifies most of Auburn as being in areas of High Threat. Using the Wildland Fire Risk Map, in conjunction with County Assessor data, the values of identified parcels at risk within the mapped fire risk categories in the City of Auburn were determined and presented in the table below.

CITY OF AUBURN: VALUES AT RISK TO WILDFIRE

Fire Risk	Medium		High		Very High	
Property Type	Parcel #	Value	Parcel #	Value	Parcel #	Value
Residential	0	0	5,209	1,020,509,160	5	785,044
Commercial	0	0	611	208,801,906	0	
Industrial	0	0	58	15,685,097	0	
Agricultural	0	0	105	2,248,109	0	
Misc.	0	0	0	0	0	
Total	0	0	5,983	1,247,244,272	5	785,044

Vulnerability to Other Hazards

Severe Weather

The severe weather evaluated as part of this risk assessment included: Heavy Rains, Thunderstorms, Wind, Lightning; Fog; Snow; Tornadoes, and Drought. In general, both the risk and vulnerability to the City of Auburn from severe weather is moderate and follows the analysis provided in the discussions for Placer County.

Landslide

According to the Safety Element, in addition to earthquake hazards, "Geologic hazards within the area of the Auburn General Plan are small slumps, block slides, landslides and erosional gullying." The City also has "steep slopes on its eastern edges, with unstable slopes, and areas subject to erosion and landslides...Increased urbanization on the hillsides exposes the community to possible landslides and rockslides, which may result in human injury and property damage" (pg. IX-13). However, no injuries to people or property damage have been identified within the City of Auburn. As such, the HMPC concluded that the risk and vulnerability to Auburn from landslides was minimal.

Avalanche

Avalanches in Placer County predominantly occur in sloped areas subject to heavy snowfall found in the eastern portion of the County. Given the City's location in the western portion of the County with minimal snowfall, the HMPC determined that the City of Auburn is not at risk to Avalanches.

Earthquake

Placer County is traversed by a series of northwest trending-faults that are related to the Sierra Nevada uplift. According to the Safety Element of Auburn's General Plan, "the City of Auburn is located in a seismically active region..." and "there is a high potential that the area will be subject to at least moderate earthquake shaking one or more times over the next century." It states further that "The closest identified 'potentially active' faults...are the Bear Mountain and the Melones Faults, which are situated approximately three to four miles westerly and easterly from Auburn respectively. Earthquakes on these faults would have the greatest potential for damaging buildings in Auburn, especially the unreinforced masonry structures in the older part of the city.

The closest identified 'active' fault...is the Cleveland Hills fault, situated approximately 36 miles northwesterly of Auburn...[it] was the source of the 1975 Oroville earthquake (Richter Magnitude: 5.7)" (pp. IX 9-10). Another potential earthquake source is the Midland Fault Zone to the west, where in 1892 an earthquake centered between Vacaville and Winters caused minor damage in nearby Lincoln.

Additionally, Auburn may experience minor ground shaking from distant major to great earthquakes on faults to the west and east. For example, to the west, both the San Andreas fault (source of the 8.0 estimated Richter magnitude San Francisco earthquake that damaged Sacramento in 1906) and the closer Hayward fault have the potential for experiencing major to great events. To the east in Nevada, the several faults associated with a series of earthquakes in 1954, especially the major (7.1 Richter magnitude) December 16, 1954 Fairview Peak event (about 100 miles east of Carson City), could cause minor ground shaking in Auburn.

Volcano

Similar to the countywide analysis of this hazard, the vulnerability of the City of Auburn to volcanoes is limited to ashfall associated with large or very large explosive eruptions.

Agricultural Hazard

The City of Auburn is predominantly urban in nature; agricultural production within the City limits is minimal. As such, the vulnerability of Auburn to agricultural disasters is also minimal.

West Nile Virus

Based on the same analysis conducted for Placer County, both the risk and vulnerability to the City of Auburn from WNV is considered low, based on the percentage of total population that actually comes down with the disease.

CITY OF COLFAX

Population: 1,496 (2000 Census)

Area: 1.3 square miles

According to the Safety Element portion of the General Plan, the City of Colfax has not declared any local emergencies or been part of any state or federal declared emergencies in the recent past. The Hazard Analysis Summary for the City of Colfax is below.

SUMMARY HAZARD ANALYSIS: CITY OF COLFAX

Hazard	Estimated Frequency	Expected Severity
Earthquakes/Geologic Hazards	Rare	Low
Fires	Frequent	High
Floods	Low	Low
Interstate 80 Corridor Accidents	Frequent	Moderate
Propane Distribution Facilities	Low	High
Terrorism	Rare	Low

Total Vulnerability and Values At Risk

The following sections show the value of property and key inventories at risk within the City of Colfax.

Assessor Data

Utilizing Placer County assessor data, the following information was obtained for the City of Colfax.

2004 CERTIFIED ROLL VALUES

Property Type	Units	Net Value
Residential	701	90,073,829
Commercial	119	24,574,567
Industrial	26	16,714,795
Agricultural	4	0
Total Value	850	131,363,191

Critical Facilities at Risk

Utilizing the definition of critical facilities set forth previously in this Plan, the critical facilities in the City of Colfax are listed below.

Class 1 Facilities:

- Repeaters for Sheriff and Fire
- Repeaters for cell phones
- Verizon telephone center

Class 2 Facilities:

- Sheriff Substation
- CDF Fire Station
- City Fire Stations (2)
- AMR (Ambulance) quarters

Class 3 Facilities:

- Water Treatment plant
- Wastewater Treatment plant
- Sewage infrastructure
- Park Facilities
- Veteran's Memorial Hall
- Sierra Vista Community Center

Cultural and Natural Resources at Risk

Cultural and natural resources in the City of Colfax include those previously identified in the County inventory. Other irreplaceable cultural resources of importance to Colfax are listed below.

- Neff House at 55 West Grass Valley St.
- The Colfax Hotel at Grass Valley St. and Railroad St.
- Chamber of Commerce Rail Car
- Perkins-Lobner Victorian on Railroad St.
- Colfax Fruit Sheds
- Lincoln Highway and Highway 40 routes went through the City
- Schuyler Colfax statue at Grass Valley St. and Railroad St.
- Northwestern Pacific Caboose, Number 28 at Main St. and Grass Valley St.
- Fire Bell Tower at the north end of the Colfax Freight Depot
- Hydraulic Monitor at the foot of the flagpole on North Main St.
- Judge Jacob Kuenzly home at Depot St. and Pleasant St.

- Masonic Building and IOOF Building on North Main St.
- Colfax Record Newspaper building at 25 W. Church St.
- Colfax City Hall at 33 South Main St.
- Colfax Theater at 49 South Main St.
- Building currently housing the Colfax Branch Library at South Main St. and Church St.
- All of the other buildings along the west side of North and South Main St.
- Colfax Cemetery on North Canyon Way
- Cape Horn railroad roadbed

Development Trends

Although growth as a whole in Placer County has been significant in the last 14 years, Colfax's population has shown only a moderate increase between 1990 and 2000. The population is projected to increase by 38 percent between 2000 and 2020, growing to 2,900 according to the 2004 Wastewater Treatment Plan. Currently, development is on hold due to inadequacies of the Wastewater Treatment Plant. Upgrades to the Plant are scheduled for completion in 2006.

Vulnerability to Flood

Flooding is not a significant hazard to the City of Colfax, but street flooding has occurred occasionally during heavy rainfalls. The City does not currently have any structures within the defined 100-year floodplain. The existing FIRM maps for the City of Colfax are identified in the following table.

CITY OF COLFAX: NFIP COMMUNITY #06061C0

Map Number	Effective Date
06061C0125F	06/08/1998
06061CINDO	11/21/2001

Vulnerability to Dam Failure

A dam failure can range from a small, uncontrolled release to a catastrophic failure. The HMPC's analysis of inundation areas for dam failure's was based strictly on information on file with the County GIS and was evaluated on a County-wide basis in the previous section. The analysis does not reflect the actual inundation maps on file for each of the dams. Since available dam failure data was limited, no further analysis was done with respect to the potential vulnerability of the City of Colfax to dam failures. However, utilizing the County GIS data, dam inundation zones generally follow the existing streams and drainage areas, and areas subject to flooding from a dam failure would likely be those areas located along these streams and drainages.

While not a threat to Colfax, should the wastewater treatment plant dam fail, the City would be responsible for any damages to downstream properties. The dam is inspected annually by the California Department of Water Resources, Division of Safety of Dams (DSOD).

Vulnerability to Wildfire

Wildfire is a constant threat to the City of Colfax. The Safety Element of Colfax's General Plan notes that Colfax and the surrounding area are designated as a "very high hazard area", and wildland and urban-wildland interface fires do occur relatively frequently, with a significant interface fire (the "Narrow Gauge Fire") burning close to the edge of town in 2002. The 2001 Ponderosa Fire and the 2004 Stevens Fire also threatened the city.

The Countywide Wildland Fire Risk Map (page 124) identifies most of Colfax as being in areas of High to Very High Threat. Using the Wildland Fire Risk Map, in conjunction with County Assessor data, the values of identified parcels at risk within the mapped fire risk categories in the City of Colfax were determined and presented in the table below.

CITY OF COLFAX: VALUES AT RISK TO WILDFIRE

Fire Risk Property Type	Medium		High		Very High	
	Parcel #	Value	Parcel #	Value	Parcel #	Value
Residential	1	0	722	91,801,164	0	0
Commercial	1	0	154	38,637,485	0	0
Industrial	0	0	36	17,513,089	0	0
Agricultural	0	0	5	0	0	0
Misc.	0	0	0	0	0	0
Total	2	0	917	1,47,951,738	0	0

Vulnerability to Other Hazards

Severe Weather

The severe weather evaluated as part of this risk assessment included: Heavy Rains, Thunderstorms, Wind, Lightning; Fog; Snow; Tornadoes, and Drought. In general, both the risk and vulnerability to the City of Colfax from severe weather is moderate and follows the analysis provided in the discussions for Placer County.

Landslides

The Safety Element also identifies other local geologic hazards, which may or may not be associated with earthquake shaking. These include a "moderate to very high erosion hazard;" the potential for soil liquefaction in or near stream beds or nearby slopes, that are highly saturated with water; and landslides due to a variety of slope, vegetation, and development conditions. However, no injuries to people or property damage from landslides have been identified within the City of Colfax. As such, the HMPC concluded that the risk and vulnerability to Colfax from landslides was minimal.

Avalanche

Avalanches in Placer County predominantly occur in sloped areas subject to heavy snowfall found in the eastern portion of the County. Given the City's location in the central to western portion of the County with minimal snowfall, the HMPC determined that the City of Colfax is not at risk to Avalanches.

Earthquake

Placer County is traversed by a series of northwest trending-faults that are related to the Sierra Nevada uplift. According to the Safety Element of the General Plan, the City of Colfax is located in a seismically active region, and while the City has no recent experience with earthquake effects, it is reasonable to assume the potential exists for moderate ground shaking to occur one or more times over the next century, especially if an epicenter is located nearby, such as was the case in 1975 in Oroville, which is approximately 40 miles north of Colfax.

The Safety Element notes that the State's listing of active faults does not include any showing surface rupture in the City of Colfax, but relatively little fault mapping has been completed in the region. A study for the nearby City of Auburn notes that "potentially active" faults in the area include the Bear Mountain and the Melones Faults, which are in the vicinity of Colfax, and are located about three to four miles to the west and east of Auburn, respectively. Earthquakes on these faults would have the greatest potential for damaging buildings in Colfax, especially the unreinforced masonry structures in the older part of the city.

Additionally, Colfax may experience ground shaking from distant major to great earthquakes on faults to the west and east. For example, to the west, both the San Andreas fault (source of the 8.0 estimated Richter magnitude San Francisco earthquake that damaged Sacramento in 1906) and the closer Hayward fault have the potential for experiencing major to great events. To the east in Nevada, the several faults associated with the series of earthquakes in 1954, especially the major (7.1 Richter magnitude) December 16, 1954 Fairview Peak event (about 100 miles east of Carson City) could cause minor ground shaking in Colfax.

Volcano

Similar to the countywide analysis of this hazard, the vulnerability of the City of Colfax to volcanoes is limited to ashfall associated with large or very large explosive eruptions.

Agricultural Hazard

The City of Colfax is located in the foothills; agricultural production within the City limits is minimal. As such, the vulnerability of Colfax to agricultural disasters is also minimal.

West Nile Virus

Based on the same analysis conducted for Placer County, both the risk and vulnerability to the City of Colfax from WNV is considered low, based on the percentage of total population that actually comes down with the disease.

CITY OF LINCOLN

Population: 11,205 (2000 Census)

Area: 18.3 square miles

According to the Safety Element portion of the General Plan, the City of Lincoln has been included in recently declared flood emergencies in 1986, 1992, and 1995. In the 1995 Yuba City floods, Lincoln provided three shelter facilities for 2500 evacuees.

SUMMARY HAZARD ANALYSIS: CITY OF LINCOLN

Hazard	Estimated Frequency	Expected Severity
Aircraft Accidents	Frequent	Low
Earthquakes/Geologic Hazards	Rare	Low
Explosive Manufacturing & Storage	Rare	High
Fires	Occasional	Moderate
Floods	Frequent	Moderate
Propane & Natural Gas Incidents	Rare	High
SR 65 & Railroad Accidents	Frequent	Moderate
Terrorism	Rare	Moderate

Total Vulnerability and Values At Risk

The following sections show the value of property and key inventories at risk within the City of Lincoln.

Assessor Data

Utilizing Placer County assessor data, the following table of information was obtained for the City of Lincoln.

2004 CERTIFIED ROLL VALUES

Property Type	Units	Net Value
Residential	12,399	2,732,063,066
Industrial	111	135,273,364
Commercial	228	116,791,234
Agricultural	22	1,050,703
Total Value	12,762	2,985,366,902

Critical Facilities at Risk

Utilizing the definition of critical facilities set forth previously in this Plan, critical facilities in the City of Lincoln are listed below.

Class 1 Facility:

- Lincoln City Dispatch Center

Class 2 Facilities:

- Lincoln Police Stations
- Lincoln Fire Stations
- Lincoln Airport

Class 3 Facilities:

- Schools
- Water Treatment plants
- Power generation infrastructure
- Sewage infrastructure
- Memorial Halls
- Park Facilities

Cultural and Natural Resources at Risk

Cultural and natural resources in the City of Lincoln include those previously identified in the County inventory. No other separate inventories or mapping of cultural or natural resources have been conducted by the City of Lincoln; therefore, the HMPC was unable to perform a more accurate analysis of these resources located within City limits.

Development Trends

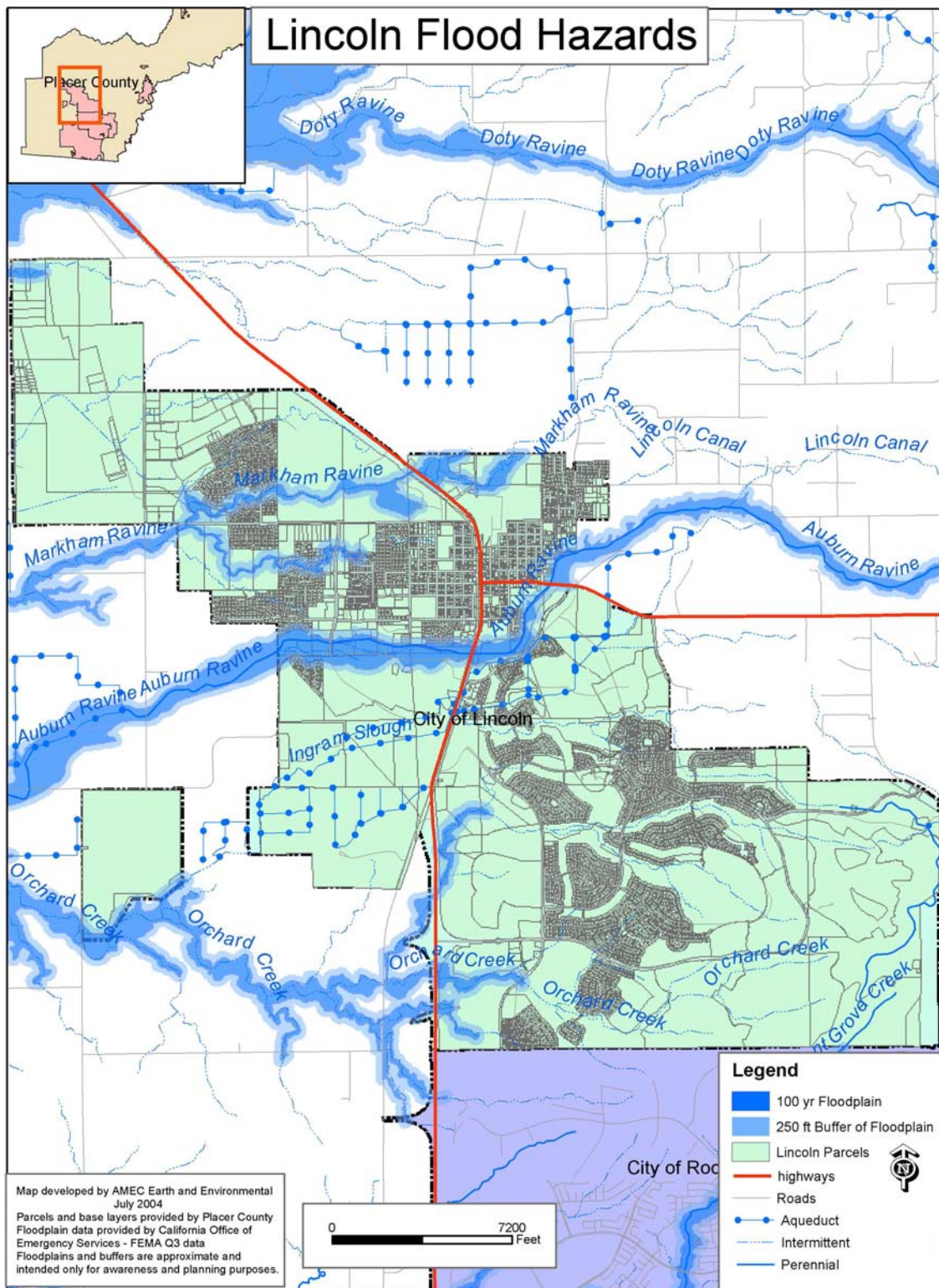
Growth as a whole in Placer County has been significant in the last 14 years; Lincoln is the city with the second highest growth rate in the State, showing a 59 percent increase in population

between 1990 and 2000. The population is anticipated to increase by 450 percent between 200 and 2020. The flood and fire vulnerability will likely increase proportionately.

Vulnerability to Flood

Flooding is a significant hazard to the City of Lincoln with certain areas of the city included in the currently defined 100-year floodplains: specifically, Markham Ravine and Auburn Ravine and their tributaries. The Safety Element of Lincoln's General Plan notes that where Nicolaus Road crosses Markham Ravine "flooding has closed and washed out the roadway on a regular basis." Other localized flooding occurs due to drainage problems that restrict flows, such as the railroad right-of-way and State Route 65, both of which go through central Lincoln.

The map on the following page intersects the City of Lincoln's parcel data with FEMA's Q3, 100-year floodplain data. Based on this analysis the following table quantifies the value of parcels falling within the 100-year floodplain.



(Map Compilation: AMEC Earth & Environmental; Source Data: FEMA's Q3 data/Placer County Assessor)

Assessor Data

The following table shows the value of parcels located within the 100-year floodplain.

CITY OF LINCOLN: 100-YEAR FLOODPLAIN VALUES AT RISK

Property Type	Parcel Count	Net Value
Residential	605	132,275,066
Industrial	37	36,246,886
Commercial	9	5,945,916
Agricultural	26	265,417
Total	677	174,733,285

Insurance Coverage, Claims Paid, and Repetitive Losses

The City of Lincoln joined the NFIP on February 3, 1982. The following table identifies the existing FIRM maps for the City of Lincoln.

CITY OF LINCOLN: NFIP COMMUNITY #06061C0

Map Number	Effective Date
06061C0382F	06/08/1998
06061C0400F	06/08/1998
06061C0401F	06/08/1998
06061C0403F	06/08/1998
06061C0404F	06/08/1998
06061C0411F	06/08/1998
06061C0412F	06/08/1998
06061CINDO	11/21/2001

NFIP Insurance data indicates that as of August 31, 2004, there are 42 flood insurance policies in City of Lincoln. Historically, there have been 8 claims for flood losses totaling \$65,072. 42 policies for 677 parcels in the floodplain is coverage of only 6.2%.

Vulnerability to Dam Failure

A dam failure can range from a small, uncontrolled release to a catastrophic failure. The HMPC's analysis of inundation areas for dam failures was based strictly on information on file with the County GIS and was evaluated on a County-wide basis in the previous section. The analysis does not reflect the actual inundation maps on file for each of the dams. Since available dam failure data was limited, no further analysis was done with respect to the potential vulnerability of the City of Lincoln to dam failures. However, utilizing the County GIS data, dam inundation zones generally follow the existing streams and drainage areas, and areas subject to flooding from a dam failure would likely be those areas located along these streams and drainages.

Vulnerability to Wildfire

Wildland, urban-wildland interface, and, to a much lesser extent, structural fires are of concern to the City of Lincoln. According to the Safety Element of the General Plan, historically, wildland fires have occurred near the City, but development is changing the fire potential, especially in the rangeland and higher elevation, mixed fuel areas, where wildland-urban interface fires are a continuing threat, especially if there are westerly breezes or winds. Some of the newer developments are required to have fuel management plans to reduce the fire risk, and the City has strengthened its fire protection capabilities. Nonetheless, the risk of fire remains.

The Countywide Wildland Fire Risk Map included (page 124) identifies most of Lincoln as being in areas of Medium to High Threat. Using the Wildland Fire Risk Map, in conjunction with County Assessor data, the values of identified parcels at risk within the mapped fire risk categories in the City of Lincoln were determined and presented in the table below.

CITY OF LINCOLN: VALUES AT RISK TO WILDFIRE

Fire Risk	Medium		High		Very High	
Property Type	Parcel #	Value	Parcel #	Value	Parcel #	Value
Residential	10,566	3,239,358,683	14	34,799,110	0	0
Commercial	267	138,007,222	2	9,150,000	0	0
Industrial	154	198,717,339	0	0	0	0
Agricultural	111	35,413,392	1	0	0	0
Misc.	0	0	0	0	0	0
Total	11,098	3,611,496,636	17	43,949,110	0	0

Vulnerability to Other Hazards

Severe Weather

The severe weather evaluated as part of this risk assessment included: Heavy Rains, Thunderstorms, Wind, Lightning; Fog; Snow; Tornadoes, and Drought. In general, both the risk and vulnerability to the City of Lincoln from severe weather is moderate and follows the analysis provided in the discussions for Placer County.

Landslide

The Safety Element for the City of Lincoln did not determine the City to be at risk to geologic hazards beyond earthquakes. Further, no injuries to people or property damage from landslides have been identified within the City limits. As such, the HMPC concluded that the risk and vulnerability to Lincoln from landslides was minimal.

Avalanche

Avalanches in Placer County predominantly occur in sloped areas subject to heavy snowfall found in the eastern portion of the County. Given the City's location in the lower, western portion of the County with almost no snowfall, the HMPC determined that the City of Lincoln is not at risk to Avalanches.

Earthquake

Placer County is traversed by a series of northwest trending-faults in the foothill and mountain areas that are related to the Sierra Nevada uplift. The City of Lincoln's location puts it in a low shaking intensity zone, and the City has no recent experience with earthquake effects. However, nearby earthquakes have occurred in 1975 in Oroville, approximately 40 miles north of Lincoln, and an 1892 earthquake in the Midland Fault Zone to the west, between Vacaville and Winters, caused minor damage in Lincoln. Therefore, the potential exists for moderate ground shaking to occur one or more times over the next century, especially if an epicenter is located nearby.

A study for the nearby City of Auburn notes that "potentially active" faults in the area include the Bear Mountain and the Melones Faults, which are located about three to four miles to the west and east of Auburn, respectively. Earthquakes on these faults could have the potential for damaging buildings in Lincoln, especially the unreinforced masonry structures in the older part of the city.

Additionally, Lincoln may experience ground shaking from distant major to great earthquakes on faults to the west and east. For example, to the west, both the San Andreas fault (source of the 8.0 estimated Richter magnitude San Francisco earthquake that damaged Sacramento in 1906) and the closer Hayward fault have the potential for experiencing major to great events. To the east in Nevada, the several faults associated with a series of earthquakes in 1954, especially the major (7.1 Richter magnitude) December 16, 1954 Fairview Peak event (about 100 miles east of Carson City) could cause minor ground shaking in Lincoln.

Volcano

Similar to the countywide analysis of this hazard, the vulnerability of the City of Lincoln to volcanoes is limited to ashfall associated with large or very large explosive eruptions.

Agricultural Hazard

The City of Lincoln is located in the western portion of the County. Although the City continues to support ranching and farming in the area, agricultural production within the City limits is being displaced by other development. As such, the vulnerability of Lincoln to agricultural disasters is low to moderate depending on the overall economic impacts to the community associated with a disaster event.

West Nile Virus

Based on the same analysis conducted for Placer County, both the risk and vulnerability to the City of Lincoln from WNV is considered low, based on the percentage of total population that actually comes down with the disease.

TOWN OF LOOMIS

Population: 6,260 (2000 Census)

Area: 7.3 square miles

Loomis experienced localized flooding in 1986, 1992 – 1993, and 1995. Local emergencies were declared for these events and for the interface Sierra Fire in 2002, for which the Town received a Fire Management Assistance Grant.

SUMMARY HAZARD ANALYSIS: TOWN OF LOOMIS

Hazard	Estimated Frequency	Expected Severity
Earthquakes/Geologic Hazards	Rare	Moderate
Fires	Occasional	Moderate
Floods	Low	Low
Interstate 80 Corridor Accidents	Frequent	Low
Terrorism	Rare	Moderate

Total Vulnerability and Values At Risk

The following sections show the value of property and key inventories at risk within the Town of Loomis.

Assessor Data

Utilizing Placer County assessor data, the following information was obtained for the Town of Loomis.

2004 CERTIFIED ROLL VALUES

Property Type	Units	Net Value
Residential	2,455	429,682,878
Commercial	177	55,663,456
Industrial	114	39,179,914
Agricultural	38	2,749,550
Total Value	2784	527,275,798

Critical Facilities at Risk

Utilizing the definition of critical facilities set forth previously in this Plan, critical facilities in the Town of Loomis are listed below.

Class 1 Facilities:

- Corporation yard
- Town Hall

Class 2 Facilities:

- Loomis Police Stations
- Loomis Fire Stations

Class 3 Facilities:

- Schools
- Water Treatment plants
- Power generation infrastructure
- Sewage infrastructure
- Memorial Halls
- Park Facilities

Cultural and Natural Resources

Cultural and natural resources in the Town of Loomis include those previously identified in the County inventory. No other separate inventories or mapping of cultural or natural resources have been conducted by the Town of Loomis; therefore, the HMPC was unable to perform a more accurate analysis of these resources located within Town limits.

Development Trends

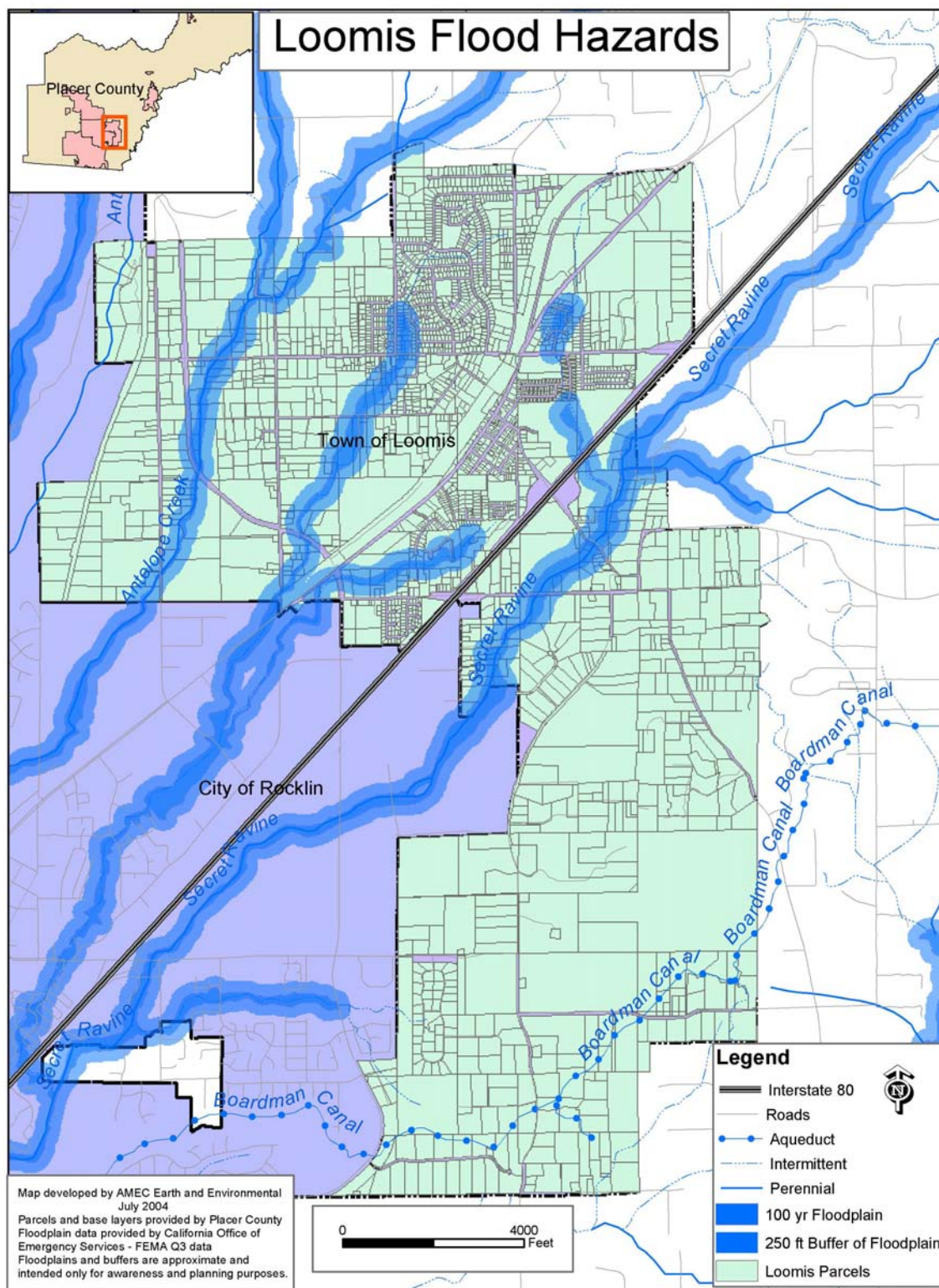
Although growth as a whole in Placer County has been significant in the last 14 years, Loomis is one of two cities that has demonstrated negative population growth between 1999 and 2003. However, housing units are projected to increase by 61.9 percent in the Town of Loomis between 2000 and 2020. The areas in Loomis likely to see the most new development include the central area through expansion of downtown and along Taylor road (multi-family housing). There also are some larger parcels on the outer edge of Loomis that will be developed into 4.6 and 2.3 acre lots.

Vulnerability to Flood

The Safety Element of Loomis' General Plan notes that flooding has been a minor hazard because of the Town's relatively elevated location compared to downstream localities. However, the 1998 Flood Insurance Rate Map does identify portions of Loomis that could be inundated in the event of 100-year and 500-year floods from several creeks that flow through the Town (Antelope Creek, Secret Ravine, and Sucker Creek and their tributaries).

Local drainage problems exist because of inadequately-sized culverts and bridges that impede high water flows, including "culverts under Interstate 80; the Horseshoe Bar Road crossing over Secret Ravine; the railroad and Taylor Road crossing of Sucker Ravine and crossings of Antelope Creek and its tributaries." In the 1995 floods, local flooding did cause damage to the floors of a few buildings ."

The map on the following page intersects the Town of Loomis' parcel data with FEMA's Q3, 100-year floodplain data. Based on this analysis the following table quantifies the value of parcels falling within the 100-year floodplain.



Assessor Data

The following table shows the value of parcels located within the 100-year floodplain.

TOWN OF LOOMIS: 100-YEAR FLOODPLAIN VALUES AT RISK

Property Type	Parcel Count	Net Value
Residential	423	73,985,436
Commercial	31	18,308,435
Industrial	1	1,295,701
Agricultural	10	1,134,951
Total	465	94,724,523

Insurance Coverage, Claims Paid, and Repetitive Losses

The Town of Loomis joined the NFIP on 12/29/1986. The following table identifies the existing FIRM maps for the Town of Loomis.

TOWN OF LOOMIS: NFIP COMMUNITY #06061C0

Map Number	Effective Date
06061C0412F	06/08/1998
06061C0414F	06/08/1998
06061C0416F	06/08/1998
06061C0418F	06/08/1998
06061C0481G	11/21/2001
06061CINDO	11/21/2001

NFIP Insurance data indicates that as of August 31, 2004, there are 62 flood insurance policies in Town of Loomis. Historically, there have also been 12 claims for flood losses totaling \$362,690. 62 policies for 465 parcels in the floodplain is coverage of almost 15%.

Vulnerability to Dam Failure

A dam failure can range from a small, uncontrolled release to a catastrophic failure. The HMPC's analysis of inundation areas for dam failures was based strictly on information on file with the County GIS and was evaluated on a County-wide basis in the previous section. The analysis does not reflect the actual inundation maps on file for each of the dams. Since available dam failure data was limited, no further analysis was done with respect to the potential vulnerability of the Town of Loomis to dam failures. However, utilizing the County GIS data, dam inundation zones generally follow the existing streams and drainage areas, and areas subject to flooding from a dam failure would likely be those areas located along these streams and drainages.

Vulnerability to Wildfire

According to the Safety Element of the General Plan , two types of fires are of concern to the Town of Loomis: wildland (including urban-wildland interface) fires and structural fires. “The topography, climate, and vegetation...are conducive to the spread of wildland fires” and in 2002 the town was impacted by the Sierra Fire.

Structural fires are associated primarily with human activities. The structural fire hazard is greatest in areas containing older buildings that do not meet current building codes.

The Countywide Wildland Fire Risk Map (page 124) identifies most of Loomis as being in areas of High Threat. Using the Wildland Fire Risk Map, in conjunction with County Assessor data, the values of identified parcels at risk within the mapped fire risk categories in the Town of Loomis were determined and presented in the table below.

TOWN OF LOOMIS: VALUES AT RISK TO WILDFIRE

Fire Risk	Medium		High		Very High	
Property Type	Parcel #	Value	Parcel #	Value	Parcel #	Value
Residential	0	0	2,587	518,157,707	0	0
Commercial	0	0	232	75,922,782	0	0
Industrial	0	0	99	44,465,783	0	0
Agricultural	0	0	53	3,147,809	0	0
Misc.	0	0	0	0	0	0
Total	0	0	2,971	641,694,081	0	0

Vulnerability to Other Hazards

Severe Weather

The severe weather evaluated as part of this risk assessment included: Heavy Rains, Thunderstorms, Wind, Lightning; Fog; Snow; Tornadoes; and Drought. In general, both the risk and vulnerability to the Town of Loomis from severe weather is moderate and follows the analysis provided in the discussions for Placer County.

Landslide

As identified in the Safety Element for the Town of Loomis, other local geologic hazards besides earthquakes include potential landslides and erosion in the steeper slope areas. However, both of these are considered relatively minor hazards. Further, no injuries to people or property damage from landslides have been identified within the Town limits. As such, the HMPC concluded that the risk and vulnerability to Loomis from landslides was minimal.

Avalanche

Avalanches in Placer County predominantly occur in sloped areas subject to heavy snowfall found in the eastern portion of the County. Given the Town's location in the lower, western portion of the County with almost no snowfall, the HMPC determined that the Town of Loomis is not at risk to Avalanches.

Earthquake

Placer County is traversed by a series of northwest trending-faults that are related to the Sierra Nevada uplift. The Foothills Fault System's Cleveland Hills Fault was the source of the 1975 Oroville earthquake (Richter Magnitude: 5.7). The SE notes that "Two segments of this fault system are relatively close to Loomis: the segment of the Bear Mountain Fault...and the Melones Fault Zone, about 15 miles to the east" (SE, pg. 121). Because of their close proximity, earthquakes on these faults could have the greatest potential for damaging buildings in Loomis, especially those constructed before earthquake resistant requirements were included in local building codes. The SE also notes that an inferred inactive fault was mapped near Loomis' southern boundary.

Ground shaking is the major earthquake hazard because of the town's location, primarily on alluvial deposits, especially along the creeks and ravines in the northern part of the Town. Parts of Loomis may experience earthquake-related ground failures, such as liquefaction, minor subsidence, lurch cracking, and lateral spreading.

Additionally, Loomis may experience ground shaking from distant major to great earthquakes on faults to the west and east. For example, to the west, both the San Andreas fault (source of the 8.0 estimated Richter magnitude San Francisco earthquake that damaged Sacramento in 1906) and the closer Hayward fault have the potential for experiencing major to great events. Another potential earthquake source is the Midland Fault Zone (Dunnigan Hills Fault) to the west, where in 1892 an earthquake centered between Vacaville and Winters caused minor structural damage in nearby communities. To the east in Nevada, the several faults associated with a series of earthquakes in 1954, especially the source of the major (7.1 Richter magnitude) December 16, 1954 Fairview Peak earthquake (about 100 miles east of Carson City), could cause ground shaking in Loomis.

Volcano

Similar to the countywide analysis of this hazard, the vulnerability of the Town of Loomis to volcanoes is limited to ashfall associated with large or very large explosive eruptions.

Agricultural Hazard

The Town of Loomis is located in the western portion of the County. Although at one time the Town was once a major commercial producer of fruit, today it is only a small part of the Town's economy. As such, the vulnerability of Loomis to agricultural disasters is low to moderate

depending on the overall economic impacts to the community associated with a given disaster event.

West Nile Virus

Based on the same analysis conducted for Placer County, both the risk and vulnerability to the Town of Loomis from WNV is considered low, based on the percentage of total population that actually comes down with the disease.

CITY OF ROCKLIN

Population: 36,330 (2000 Census)

Area: 21 square miles

Rocklin has not declared any local emergencies or been part of any state or federal declared emergencies in the recent past.

SUMMARY HAZARD ANALYSIS: CITY OF ROCKLIN

Hazard	Estimated Frequency	Expected Severity
Earthquakes/Geologic Hazards	Infrequent	Low
Extreme Weather	Sometimes	Moderate
Fires	Frequent	Moderate
Floods	Sometimes	Low-Moderate
Interstate 80 Corridor Accidents	Sometimes	Low-Moderate
Landslides	Infrequent	Low
Terrorism	Infrequent	Low-Moderate
Train Accident	Sometimes	Low-Mod.-High

Total Vulnerability and Values At Risk

The following sections show the value of property and key inventories at risk within the City of Rocklin.

Assessor Data

Utilizing Placer County assessor data, the table of information on the following page was obtained for the City of Rocklin.

2004 CERTIFIED ROLL VALUES

Property Type	Units	Net Value
Residential	15,817	4,126,607,948
Commercial	544	578,156,919
Industrial	168	271,511,507
Agricultural	52	1,998,662
Total Value	16,581	4,978,275,036

Critical Facilities at Risk

Utilizing the definition of critical facilities set forth previously in this Plan, the critical facilities in the City of Rocklin are listed below.

Class 1 Facilities:

- Rocklin Dispatch Center/Station 1
- Rocklin Police Station/Dispatch Center (opening 2005)

Class 2 Facilities:

- Rocklin Police/Fire Station
- Fire Station 2
- Fire Station 3 (opening Fall 2005)

Class 3 Facilities:

City General Government Buildings

- City Hall
- Administration Building
- Corporation Yard

City Community Buildings

- Sunset Center
- Community Center
- Finn Hall
- 3rd Street Recreation Center
- 5th Street Recreation Center

School Facilities

- Rocklin High School
- Liberty High School (opening Fall 2005)

- Spring View Middle School
- Granite Oaks Middle School
- Breen Elementary School (ES)
- Cobblestone ES
- Parker Whitney ES
- Sierra ES
- Valley View ES
- Rocklin ES
- Antelope Creek ES
- Twin Oaks ES
- Rock Creek ES
- Ruhkala ES (opening Fall 2005)
- Rocklin Unified School District Office
- RUSD Corporation Yard

Community Parks

- Johnson-Springview
- Twin Oaks
- Lone Tree
- Margaret Azevedo (opening Fall 2005)

Cultural and Natural Resources at Risk

Cultural and natural resources in the City of Rocklin include those previously identified in the County inventory. This includes the following cultural resource: 780-2 First Transcontinental Railroad – Rocklin (Location: SE corner of Rocklin Rd and First St, Rocklin).

The State of California has also listed Finnish Temperance Hall (PLA:016-1985) at Rocklin Road/South Grove Street on the State list of “Point of Interest. The City of Rocklin has other areas that have been identified, for local purposes, as local “Points of Interest.” These Points of Interest areas are identified in the Rocklin General Plan and include such sites as Front Street Historic District, Parker Whitney Mansion, and the Train Depot site.

No other separate inventories or mapping of cultural or natural resources have been conducted by the City of Rocklin; therefore, the HMPC was unable to perform a more accurate analysis of these resources located within City limits.

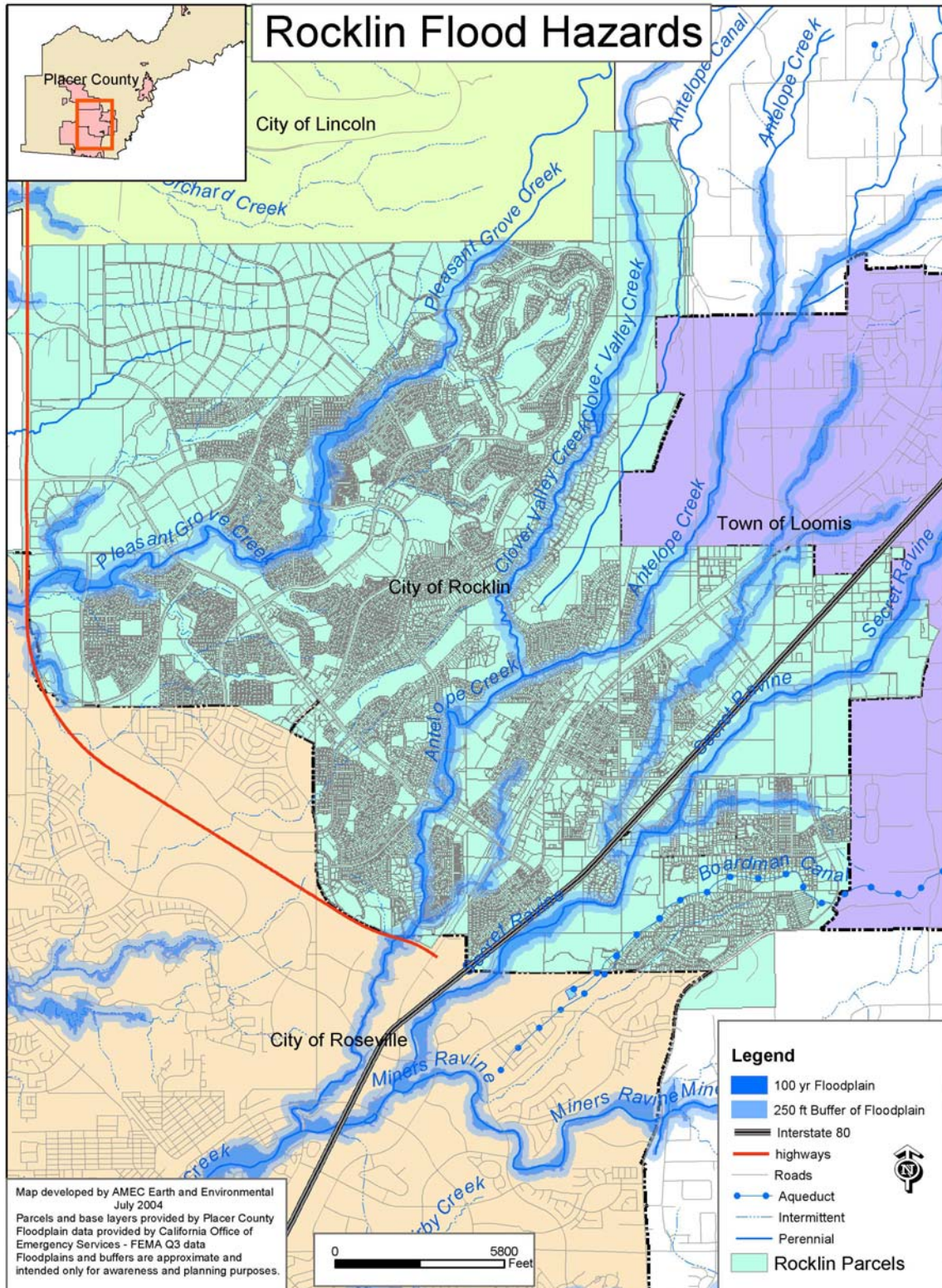
Development Trends

Growth as a whole in Placer County has been significant in the last 14 year. Rocklin is one of three cities in the County among the top 30 in the state for growth. The housing stock in Rocklin increased by 93 percent between 1990 and 2000 and is projected to increase by 70.3 percent between 2000 and 2020. The areas in Rocklin seeing the most new development include the north and northwest areas as well as in Central and Southeast Rocklin.

Vulnerability to Flood

Flood hazards in Rocklin occur due to overflows from the existing stream drainage system. The City's urban drainage system discharges into the creeks that transect the community. This includes Antelope Creek, Secret Ravine Creek, Clover Valley Creek, Sucker Creek, Pleasant Grove Creek, the Aguilar Tributary area, and the Second Street Tributary area. Except for the Pleasant Grove Creek, all of these ultimately discharge into Dry Creek. The Pleasant Grove Creek watershed flows to Sutter County, where it discharges into the Sacramento River. The City of Rocklin participates in the NFIP. FEMA has mapped floodplains in Rocklin and surrounding areas. The maps show 100-year and 500-year floodplains and floodways located primarily along the channels of the area creeks. Rocklin's Safety Element notes that the major contributors to flooding are from several creeks that flow through the City: Antelope, Secret Ravine, Clover Valley, and Sucker.

The map on the following page intersects the City of Rocklin's parcel data with FEMA's Q3, 100-year floodplain data. Based on this analysis the following table quantifies the value of parcels falling within the 100-year floodplain.



(Map Compilation: AMEC Earth & Environmental; Source Data: FEMA's Q3 data/Placer County Assessor)

Assessor Data

The following table shows the value of parcels located within the 100-year floodplain.

CITY OF ROCKLIN: 100-YEAR FLOODPLAIN VALUES AT RISK

Property Type	Parcel Count	Net Value
Residential	2191	635,028,506
Commercial	135	156,579,470
Industrial	47	150,309,824
Agricultural	42	801,439
Total	2415	942,719,239

Insurance Coverage, Claims Paid, and Repetitive Losses

The City of Rocklin joined the NFIP on 05/15/1984. The following table identifies the existing FIRM maps for the City of Rocklin:

CITY OF ROCKLIN: NFIP COMMUNITY #06061C0

Map Number	Effective Date
06061C0412F	06/08/1998
06061C0413F	06/08/1998
06061C0414F	06/08/1998
06061C0418F	06/08/1998
06061C0477G	11/21/2001
06061C0481G	11/21/2001
06061CINDO	11/21/2001

NFIP Insurance data indicates that as of August 31, 2004, there are 122 flood insurance policies in City of Rocklin. Historically, there have been 24 claims for flood losses, totaling \$250,461. 122 policies for 2415 parcels in the floodplain is coverage of only 5%.

Vulnerability to Dam Failure

A dam failure can range from a small, uncontrolled release to a catastrophic failure. The HMPC's analysis of inundation areas for dam failures was based strictly on information on file with the County GIS and was evaluated on a countywide basis in the previous section. The analysis does not reflect the actual inundation maps on file for each of the dams. Since available dam failure data was limited, no further analysis was done with respect to the potential vulnerability of the City of Rocklin to dam failures. However, utilizing the County GIS data, dam inundation zones generally follow the existing streams and drainage areas, and areas subject to flooding from a dam failure would likely be those areas located along these streams and drainages. Rocklin itself does not any navigable waters or dams. All of the creeks and drainages are influenced by seasonal run-off and have specific control mechanisms.

Vulnerability to Wildfire

Two types of fires are of concern to the City of Rocklin: urban-wildland interface and, to a lesser extent, structural fires. The City of Rocklin has been a rapidly growing city in Placer County. Native Rocklin has some areas of sloped grasslands with medium-density oak trees. Much of the new development has occurred on these grassy slopes, creating an increased exposure to fire. According to the 2004 Draft General Plan, these include Clover Valley Lakes, areas at the southern end of China Garden Road, portions of Whitney Oaks, the Croftwood/Dias Lane area, and the Sunset Ranchos. This new development in the wildland interface areas, combined with summertime temperatures, low humidity, and dry north winds compounds the exposure to wildfire.

The County-wide Wildland Fire Risk Map (page 124) identifies most of Rocklin as being in areas of Medium to High Threat. Using the Wildland Fire Risk Map, in conjunction with County Assessor data, the values of identified parcels at risk within the mapped fire risk categories in the City of Rocklin were determined and presented in the table below.

TOWN OF ROCKLIN: VALUES AT RISK TO WILDFIRE

Fire Risk	Medium		High		Very High	
Property Type	Parcel #	Value	Parcel #	Value	Parcel #	Value
Residential	14,591	4,194,744,934	1,702	530,684,334	0	0
Commercial	561	738,154,080	157	146,121,353	0	0
Industrial	130	179,854,080	70	81,554,616	0	0
Agricultural	112	3,295,979	33	249,710	0	0
Misc.	0	0	0	0	0	0
Total	15,394	5,116,047,853	1,962	758,610,013	0	0

Vulnerability to Other Hazards

Severe Weather

The severe weather evaluated as part of this risk assessment included: Heavy Rains, Thunderstorms, Wind, Lightning; Fog; Snow; Tornadoes; and Drought. Problems connected with severe weather include erosion, sedimentation, degradation of water quality, and losses of environmental resources in low lying areas. In general, both the risk and vulnerability to the City of Rocklin from severe weather is moderate and follows the analysis provided in the discussions for Placer County. The damages associated with the primary effects of severe weather have been limited. It is the secondary effects of weather such as flood, fire, and damage to transportation systems that have had the greatest impact on the City of Rocklin. The vulnerability to the City of Rocklin from drought includes reduction in water supply, landscape losses, and an increase in dry fuels. It is this last drought affect that leaves the city more vulnerable to damaging wildfires.

Landslide

As identified in the Safety Element for the City of Rocklin, other local geologic hazards besides earthquakes include minor soil stability and erosion problems in limited areas. However, these are considered relatively minor hazards. No injuries to people or property damage from landslides have been identified within the City limits. As such, the HMPC concluded that the risk and vulnerability to Rocklin from landslides was minimal.

Avalanche

Avalanches in Placer County predominantly occur in sloped areas subject to heavy snowfall found in the eastern portion of the County. Given the City's location in the lower, western portion of the County with almost no snowfall, the HMPC determined that the City of Rocklin is not at risk to Avalanches.

Earthquake and Geologic Hazard

The City of Rocklin is located in an area that has a relatively low risk of seismic activity. While the seismic risk may not be considered substantial, seismic activity may affect development in the planning area and cannot be completely discounted as a planning factor.

There are no known active faults in Placer County. The last seismic event recorded in the area with a magnitude of 4 or greater(Richter scale) occurred in 1908. The distance to major regional faults and general stability of the underlying geology of the area combine to minimize the potential localized impact of seismic events that may occur elsewhere. According to the Safety Element of the 1994 Draft General Plan, the Rocklin area could be subject to moderate to strong ground shaking from earthquake or fault zones located in the area near the boundary of the Sierra Nevadas and the Sacramento Valley, and near the coast Ranges and the San Francisco Bay Area. There are other fault zones in the Sierra Nevada foothills that could also produce seismic effects in the Rocklin area. The nearest well-defined fault zone is a portion of the West Branch of the Bear Mountains Fault Zone, a portion of the Foothills Fault System, which follows the eastern side of the Sacramento Valley through El Dorado, Placer and Amador Counties.

Within the Sierra Nevada foothills, the largest estimated earthquake is a magnitude 6.5 and the largest probable earthquake has been estimated at a magnitude of 5.0 to 5.5 (Draft 2004 SE).

Volcano

Similar to the countywide analysis of this hazard, the vulnerability of the City of Rocklin to volcanoes is limited to ashfall associated with large or very large explosive eruptions.

Agricultural Hazard

The City of Rocklin is located in the western portion of the County. Although the City once was a large commercial producer of fruit, the soils today are generally of poor quality and no longer support commercial agricultural activities, with the exception of livestock grazing. As such, the vulnerability of Rocklin to agricultural disasters is low to moderate depending on the overall economic impacts to the community associated with a given disaster event.

West Nile Virus

Based on the same analysis conducted for Placer County, both the risk and vulnerability to the City of Rocklin from WNV is considered low, based on the percentage of total population that actually comes down with the disease.

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